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PROCESSING CABBAGE CULTIVAR
EVALUATION TRIALS

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PROCESSING CABBAGE CULTIVAR EVALUATION TRIALS--1984

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The cabbage cultivar evaluation trials were conducted at the OARDC Vegetable Crops Research Branch near Fremont. The soil is a sandy loam. The plots received 670 lb/A broadcast of 15-15-15 and 150 lb/A within-row at planting of 6-24-12 fertilizer; 1 1/2 lb/A boron and 3 qts/A of Diazinon pre-plant incorporated. Treflan at 1.0 lb/A was pre-plant incorporated for weed control.

The plots were field seeded on May 2, using a Planet-Jr. seeder. Rows were 30 ft. long on 30-in. centers. The rows were hand-thinned to give an 18-in. spacing. Each cultivar was replicated four times.

Cultural care throughout the season was according to recommended procedures. No serious insect, disease, or weed problems developed during the season. Monthly rainfall totals were:

May	4.81 in.
June	1.96 in.
July	2.82 in.
August	3.20 in.
September	2.52 in.
October	1.18 in.

The plots were irrigated on June 13, 5/8 in., July 2, 3/4 in., and July 25, 1/2 in. When the majority of the heads reached maturity, the cultivars were evaluated for uniformity of head size and maturity, plant size, and plant uprightness. The heads were harvested on August 29 and September 21, counted and weighed. Three heads of each cultivar from each replicate were cut and the core length and polar and equatorial diameters recorded. The observational trial from the planting on May 2 was harvested on August 20 and September 21, the numbers and weight of heads recorded. Three heads of each cultivar were cut, and the core length, equatorial and polar diameter recorded.

Seed companies who supplied seed for these trials included: Joseph Harris Co., Inc., Rochester, NY; Northrup King & Co., Minneapolis, MN; Ferry-Morse Seed Co., Mountain View, CA; Bejo Zaden Seeds, Noordscharwaude, Holland; Abbott & Cobb, Inc., Feasterville, PA; Sluis & Groot of America, Inc., Salinas, CA; Agway, Inc., Prospect, PA; Siegers Seed Co., Imlay City, MI; W. Atlee Burpee Co., Santa Paula, CA; Royal Sluis, Inc., Salinas, CA; Petoseed Co., Inc., Woodland, CA; and Agrigenetics Corp., Hollister, CA.

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TABLE 1. Yield and quality characteristics of cabbage cultivars for processing, Replicated Trial - 1984.

Cultivar	Source	Harvest Date		Measurements (in.)		
		Tons/ acre	Lbs/ head	Core lgth.	Polar diam.	Equatorial diam.
Hercules	Northrup King	49.6	8.44	3.21	6.50	9.00
Krautpacker	Bejo Zaden	49.6	8.55	2.96	8.21	8.54
Rio Verde	Siegers	49.4	8.20	3.12	6.96	8.92
Bravo	Harris	48.7	8.49	3.37	7.29	8.75
Krautking	Bejo Zaden	39.5	7.35	3.04	8.12	8.21
SSX	Seigers	38.8	7.91	3.25	6.96	8.75
Falcon	Royal Sluis	38.8	7.60	3.04	7.92	8.04
Grand Slam	Northrup King	38.0	6.75	3.00	7.33	8.83
Titanic-90	Ferry-Morse	37.1	6.33	3.75	7.62	8.42
Rodolfo	Bejo Zaden	36.7	7.08	3.21	7.83	8.08
Candor	Harris	36.0	6.14	3.92	7.21	8.04
Green Boy	Northrup King	32.9	5.47	3.33	7.08	8.00
Superboy	Petoseed	32.6	5.99	3.62	7.12	7.92
Musca	Royal Sluis	32.5	6.39	2.75	7.83	7.37
Olympic	Northrup King	31.1	6.29	3.79	7.17	8.25
NCX-9046	Harris	30.3	5.74	2.71	8.25	8.92
NCX-9042	Harris	29.8	5.45	3.46	7.17	8.83
SG-637	Sluis & Groot	29.6	5.32	3.04	6.92	7.17
NVH-652	Northrup King	<u>25.9</u>	<u>4.57</u>	<u>3.33</u>	<u>6.87</u>	<u>7.21</u>
LSD 5%		8.44	1.54	.444	.611	.739

TABLE 2. Quality characteristic ratings of cabbage cultivars for processing,
Replicated Trial - 1984.*

Cultivar	Plant Characteristics*		
	Uniformity	Plant size	Plant uprightness
Hercules	2	2	1
Krautpacker	2	3	2
Rio Verde	2	2	1
Bravo	2	3	1
Krautking	3	3	2
SSX	2	2	1
Falcon	3	3	3
Grand Slam	3	3	2
Titanic-90	1	3	2
Rodalfo	1	3	1
Candor	1	2	1
Green Boy	1	2	2
Superboy	2	2	2
Musca	3	3	2
Olympic	1	3	2
NCX-9046	3	3	2
NCX-9042	2	3	1
SG-637	2	2	2
NVH-652	1	1	3

* Uniformity: 1 = good; 2 = fair; 3 = poor

Plant Size: 1 = small; 2 = medium; 3 = large

Uprightness: 1 = upright; 2 = slightly tipped; 3 = very tipped

TABLE 3. Yield and quality characteristics of cabbage cultivars for processing, Observational Trial - 1984.

Cultivar	Source	Harvest Date		Measurements (in.)		
		Tons/ acre	Lbs/ head	Core lgth.	Polar diam.	Equatorial diam.
Viking	Agway	11.8	3.14	3.16	6.00	7.16
Blueboy	Abbott & Cobb	37.3	8.62	3.33	7.16	9.50
HYB #5	Abbott & Cobb	46.2	8.36	3.00	6.33	8.33
ACX-830802	Abbott & Cobb	39.5	7.55	3.00	8.00	8.00
BUX-6C-1	Burpee	18.7	3.79	2.83	5.33	6.50
Ocala	Agrigenetic Corp.	27.3	5.22	3.33	6.30	7.50
AVX-1694	Agrigenetic Corp.	22.1	4.22	2.33	5.16	7.00
Caledon	Sluis & Groot	28.5	6.13	3.16	7.50	7.83
PSX-53879	Petoseed	29.8	5.41	3.50	6.83	7.66
Sagitta	Royal Sluis	25.8	4.45	2.66	7.16	6.83
Orbit	Royal Sluis	13.3	3.54	3.33	6.83	6.66
Formax	Royal Sluis	23.2	3.80	2.00	6.00	6.00
FM-X260	Ferry-Morse	33.4	6.39	2.33	7.00	7.16
FM-X262	Ferry-Morse	30.2	5.20	3.66	7.00	7.66
FM-X266	Ferry-Morse	17.1	4.21	3.00	7.33	7.33

TABLE 4. Quality characteristic ratings of cabbage cultivars for processing,
Observational Trial - 1984.

Cultivar	Plant Characteristics*		
	Uniformity	Plant size	Plant uprightness
Viking	1	2	2
Blueboy	1	3	2
HYB #5	3	2	2
ACX-830802	2	2	1
BUX-6C-1	1	1	1
Ocala	3	2	1
AVX-1694	2	1	2
Caledon	1	2	1
PSX-53879	1	2	3
Sagitta	3	2	1
Orbit	3	2	2
Formax	1	2	1
FM-X260	1	2	2
FM-X262	1	2	2
FM-X266	3	1	3

* Uniformity: 1 = good; 2 = fair; 3 = poor
Plant Size: 1 = small; 2 = medium; 3 = large
Uprightness: 1 = upright; 2 = slightly tipped; 3 = very tipped

TABLE 5. Additional observations on cultivars and lines including internal quality.*

Cultivar	Comments
Falcon	Lg frame, tippy, poor uniform., pointed heads, may be OK for late crop
Musca	Sl.tip, med-lg frame, pointed heads, p.uniform., lg.mid-ribs
SSX	Med-lg frame, fairly upright, fair uniform., looks fair-good
Rio Verde	Med.frame, fair uniform., upright, looks good
Superboy	Med. frame, fair uniform., good color, lg mid-ribs
SG-637	Fresh market type, very lg mid-ribs
Bravo	Lg frame, fair uniform., looks fair-good, internal buds
NCX-9042	Lg frame, fair uniform., good color, lg mid-ribs, upright
Candor	Med. frame, good uniform., good color, sm. mid-ribs, upright
NCX-9046	Lg frame, sl.tip, good color, non-uniform. maturity
Hercules	Med-Lg frame, upright, lg. mid-ribs, looks very good
Green Boy	Med.frame, sl. tip, good uniform., good color, sm. mid-ribs
NVH-652	Sm. frame, upright, good uniform., sm. mid-ribs
Olympic	Lg.frame, sl.tip, good uniform., lt.green internal color, sm.mid-ribs
Grand Slam	Lg.frame, sl.tip, poor uniform., sm. mid-ribs.
Titanic-90	Standard
Rodolfo	Lg.frame, upright, good uniform, good color, sl.immature when harvested
Krautking	Lg.frame, very tippy, looks fair
Krautpacker	Lg.frame, tippy, fair uniform., looks good
Viking	Med.frame, sl.tip, good uniform.
Blueboy	Lg.frame, upright, fair uniform., sm.mid-ribs, looks good
HYB#5	Med.frame, poor uniform., sl.tip, not impressive
ACX-830802	Lg.frame, open, fairly uniform, sl.tip, looks good
BUX-6C-1	Sm.frame, good uniform., upright, fresh market type
Ocala	Med.frame, poor uniform., upright, fresh market type
AVX-1694	Sm.frame, fair uniform., sl.tip, fresh market type, late
Caledon	Med.frame, good uniform., upright
PSX-53879	Med.frame, good uniform., v.tipped, internal green color, sm.mid-ribs
Sagitta	Med.frame, poor uniform., some blue, flats, pointed heads
Orbit	Med.frame, poor uniform., some blue & some green external color
Formax	Med.frame, fresh market type, not adapted to Ohio conditions
FM-X260	Med.frame, good uniform., sl.tip, good color, sm.mid-ribs
FM-X262	Med.frame, good uniform., sl.tip, light green inside, sm.mid-ribs
FM-X266	Sm.frame, poor uniform., very tipped, lg mid-ribs

*Internal observations were generally on the mid-ribs of the internal leaves of the heads. Where evident, internal color also noted.

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